

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: Jarvis, et al.) Confirmation No: 9794
Serial No.: 09/917,493) Group Art Unit: 2622
Filed: July 27, 2001)) Examiner: Milia, Mark R.
For: Dynamically Loaded Applications in)) Atty. Docket No.: 10010790-1
a Printer))

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Mail Stop: Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

This Appeal Brief under 37 C.F.R. § 41.37 is submitted in support of the Notice of Appeal filed October 16, 2006, responding to the final Office Action mailed June 16, 2006.

It is not believed that extensions of time or fees are required to consider this Appeal Brief. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. §1.136(a), and any fees required therefor are hereby authorized to be charged to Deposit Account No. 08-2025.

I. Real Party in Interest

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

II. Related Appeals and Interferences

There are no known related appeals or interferences that will affect or be affected by a decision in this Appeal.

III. Status of Claims

Claims 1-37 stand finally rejected. No claims have been allowed. The final rejections of claims 1-37 are appealed.

IV. Status of Amendments

This application was originally filed on July 27, 2001, with thirty-six (36) claims. In a Response filed August 19, 2005, Applicant amended claims 1-8, 10, 17, 25, and 32 and added claim 37. In a Response filed August 16, 2006, Applicant presented remarks without any claim amendments. The claims in the attached Claims Appendix (see below) reflect the present state of Applicant's claims.

V. Summary of Claimed Subject Matter

The claimed inventions are summarized below with reference numerals and references to the written description (“specification”) and drawings. The subject matter described in the following appears in the original disclosure at least where indicated, and may further appear in other places within the original disclosure.

Embodiments according to independent claim 1 describe a manager loadable printer (Fig. 4, 110). The printer (Fig. 4, 110) comprises an application program (Fig. 5, 550) loaded on the printer, wherein a manager (Fig. 5, 510) invokes functionality on and receives results from the application program (Fig. 5, 550) via an agent (Fig. 5, 530) remotely located from the application program (Fig. 5, 550). Applicant's specification, page 7, lines 4-15; pages 8-15, lines 1-6.

Embodiments according to independent claim 6 describe a method of instructing a printer (Fig. 4, 110) having a virtual machine (Fig. 4, 410). The method comprises providing an agent (Fig. 5, 530). The agent (Fig. 5, 530) has an associated applet (Fig. 5, 550). Such a method loads the applet (Fig. 5, 550) on the virtual machine (Fig. 4, 410). The method further comprises executing the applet (Fig. 5, 550) on the virtual machine (Fig. 4, 410), wherein a manager (Fig. 5, 510) invokes functionality on and receives results from the applet (Fig. 5, 550) via the agent (Fig. 5, 530) remotely located from the applet (Fig. 5, 550). Applicant's specification, page 7, lines 4-15; pages 8-15, lines 1-6.

Embodiments according to independent claim 17 describe a printer (Fig. 4, 110). The printer (Fig. 4, 110) comprises an applet (Fig. 5, 550) and a

virtual machine (Fig. 4, 410) capable of executing the applet (Fig. 5, 550). The printer (Fig. 4, 110) further comprises an interface (Fig. 4, 428) for communication between the printer (Fig. 4, 110) and a remote agent (Fig. 5, 530), wherein the agent (Fig. 5, 530) initiates management events including requesting amount of resources being utilized by each applet (Fig. 5, 550) operating on the virtual machine (Fig. 4, 410). Applicant's specification, page 7, lines 4-15; pages 8-15, lines 1-6; pages 22-23, lines 13-2.

Embodiments according to independent claim 25 describe a method of instructing a printer (Fig. 4, 110) having a virtual machine (Fig. 4, 410). The method comprises serving an applet (Fig. 5, 550) to the printer (Fig. 4, 110) and executing the applet (Fig. 5, 550) on the virtual machine (Fig. 4, 410) to produce a result. The method further comprises communicating the result from the printer (Fig. 4, 110) to an agent (Fig. 5, 530) remotely located from the printer and communicating the result from the agent (Fig. 5, 530) to a manager (Fig. 5, 510). Applicant's specification, page 7, lines 4-15; pages 8-15, lines 1-6; page 18, lines 1-12.

Embodiments according to independent claim 32 describe a printer comprising an applet execution means (Fig. 5, 510) for executing the applet (Fig. 5, 550). The printer (Fig. 4, 110) further comprises interface means (Fig. 4, 428) for communicating between the printer (Fig. 4, 110) and a remote agent (Fig. 5, 530), wherein the remote agent (Fig. 5, 530) initiates management events to be performed by the applet (Fig. 5, 550) including requesting amount of resources being utilized by each applet (Fig. 5, 550) operating on the printer (Fig. 4, 110). Applicant's specification, page 7, lines 4-15; pages 8-15, lines 1-6; pages 22-23, lines 13-2.

VI. Grounds of Rejection to be Reviewed on Appeal

The following grounds of rejections are to be reviewed on appeal:

Claims 1-19, 22-32, and 35-37 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by *Yan* (U.S. Patent No. 6,003,065).

Claims 20 and 33 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Yan* in view of *Sokolov* (U.S. Patent No. 6,823,504).

Claims 21 and 34 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Yan* in view of *Friedman* (U.S. Patent No. 6,763,499).

VII. Arguments

The Appellant respectfully submits that Applicant's claims 1-19, 22-32, and 35-37 are patentable under 35 U.S.C. §102 and claims 20-21 & 33-34 are patentable under 35 U.S.C. §103. The Appellant respectfully requests that the Board of Patent Appeals overturn the final rejection of those claims at least for the reasons discussed below.

A. Claims 1-19, 22-32, and 35-37

Claims 1-19, 22-32, and 35-37 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by *Yan* (U.S. Patent No. 6,003,065).

It is axiomatic that “[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration.” *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983). Therefore, every claimed feature of the claimed subject matter must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. §102(b).

1. The Yan Disclosure

Yan describes that virtual machine instructions can be downloaded to a peripheral device. The virtual machine instructions can be executed by the peripheral device and can configure the peripheral device to work in a predetermined manner.

In particular, *Yan* discloses:

Applications developed using systems of the present invention also facilitate peripheral devices which are self-configuring and capable of performing automatic upgrading/updating. In this application, a peripheral device registers a peripheral profile with a peripheral database when the device is attached to the network and performs a power on self-test (POST). After POST, an applet stored in non-volatile memory (NVRAM) or other storage medium of the peripheral device requests a configuration applet from the peripheral database. In response, the peripheral database downloads an applet of virtual machine instructions which automatically configures the peripheral device to work in a predetermined manner. For example, an applet could be downloaded into a printer peripheral device which causes the printer device to use a TimesRoman font, print landscape, and use papers initially from tray 1. This self-configuring option would speed up initial printer configuration significantly and allow for printer devices to be relocated on a network with minimal impact on the user community.

Col. 23, lines 47-65. Further:

The virtual machine instructions used to implement peripheral API 228 are also beneficial because processing of the jobs can be distributed or relocated on different host computers or peripheral devices. For example, using peripheral API 228 described below enables a first peripheral device to request a second peripheral device (not shown) to process data and return the image for further processing on the first peripheral device. Therefore, well written applications can perform peripheral operations in parallel and improve the effective performance of a given peripheral device.

Col. 10, lines 45-55. For example:

At step 302 in FIG. 3, the application uses a predetermined selection criteria to query the peripheral database 110 (FIG. 1)

and determine which peripheral device is best suited for performing the desired peripheral operation. Processing transfers from step 302 to step 304, where the method automatically selects a peripheral device for performing the requested job based upon the predetermined selection criteria. In one embodiment, step 304 will provide the user with a prioritized list of peripheral devices and prompt the user to decide which peripheral device should be used. If the user does not respond within a predetermined time period, the peripheral device will automatically operate on the highest priority peripheral device. For example, assume that three printers are coupled to the network and are capable of low-resolution color, high resolution black and white, and high-resolution color printing. An application or user selects a high-resolution color printer in an application running on a host computer. This causes the method to query the peripheral database, determine where the high-resolution color printer is located and then request the high-resolution color printer to perform the operation. However, if the color printer selected is unable to perform the operation, due to lack of resources such as toner or paper, the printer will then download a response application back to the requesting host machine requesting the user or application to select a different set of criteria for printing the job. In response, the user or application can then select the high-resolution black and white printer to print the job instead.

Cols. 18-19, 63-22.

2. Applicant's Claim 1

Applicant's independent claim 1 provides as follows:

A manager loadable printer comprising:
an application program loaded on the printer, wherein a
***manager invokes functionality on and receives results from
the application program via an agent remotely located from
the application program.***

(Emphasis added).

Applicants respectfully submit that independent claim 1 is allowable for at least the reason that Yan does not disclose, teach, or suggest at least "wherein a manager invokes functionality on and receives results from the

application program via an agent remotely located from the application program," as recited and emphasized above in claim 1.

Rather, *Yan* teaches that virtual machine instructions can be downloaded to a peripheral device. The virtual machine instructions can be executed by the peripheral device and can configure the peripheral device to work in a predetermined manner, as described above. However, *Yan* fails to teach or suggest that a manager from a manager loadable printer invokes functionality on an application program via an agent remotely located from the application program.

As a result, *Yan* does not teach or suggest at least all of the claimed features of claim 1. Therefore, claim 1 is not anticipated by *Yan*, and the rejection should be withdrawn for at least this reason alone.

In the Advisory Action of September 6, 2006, the Examiner states that "Yan discloses an executable computer program section '226' which is loaded into the printer that is enabled by the peripheral API '228' to access functionality associated with the device (see column 9 lines 43-49)." Page 2.

In response, Applicant submits that if the executable computer program section 226 is construed as an application program, then the peripheral API 228 does not satisfy the manger limitation in the claim. For at least this reason, claim 1 is not anticipated by *Yan*.

The Advisory Action also states: "Further, in one embodiment a remote administration application includes an applet located on the host computer that interacts with the control applets located on the peripheral devices (see column 23 lines 15-46). Thus, the host computer is located remotely from the printer via a network and the host computer (manager)

makes calls to the printer to perform desired tasks (invokes functionality), via a control applet (agent), such as printing, and receives the desired results, all of which is analogous to the claimed limitations as set forth in claims 1, 6, and 25 and therefore is still anticipated by *Yan*.” Pages 2-3.

In response, Applicant submits that *Yan* discloses that a control applet is obtained from a peripheral device and is plugged into the remote administration application “and enables a person to manage the particular peripheral device.” Col. 23, lines 30-35. Therefore, the network administration application sans control applet is unable to manage the particular peripheral device. Accordingly, a remote administration application would have to have a plugged-in control applet in order to possibly be construed as a manager, as described in the claim. If this is the case, then *Yan* does not disclose an agent, as described in the claim, since the control applet and network administration agent constitute the claimed manager and no other disclosed component or element constitutes the claimed agent, if one follows the logic of the Examiner’s argument or part thereof. For at least this reason, claim 1 is not anticipated by *Yan*.

3. Applicant’s Claims 2-5

Because independent claim 1 is allowable over the cited art of record, dependent claims 2-5 (which depend from independent claim 1) are allowable as a matter of law for at least the reason that dependent claims 2-5 contain all features of independent claim 1. For at least this reason, the rejections of claims 2-5 should be withdrawn.

4. Applicant's Claim 6

As provided in independent claim 6, Applicant claims:

A method of instructing a printer having a virtual machine, the method comprising:
 providing an agent, the agent having an associated applet;
 loading the applet on the virtual machine; and
 executing the applet on the virtual machine, ***wherein a manager invokes functionality on and receives results from the applet via the agent remotely located from the applet.***

(Emphasis added).

Applicants respectfully submit that independent claim 6 is allowable for at least the reason that *Yan* does not disclose, teach, or suggest at least “wherein a manager invokes functionality on and receives results from the applet via the agent remotely located from the applet,” as recited and emphasized above in claim 6.

Rather, *Yan* teaches that virtual machine instructions can be downloaded to a peripheral device. The virtual machine instructions can be executed by the peripheral device and can configure the peripheral device to work in a predetermined manner. However, *Yan* fails to teach or suggest that a manager from a manager loadable printer invokes functionality on an applet via an agent remotely located from the applet.

Thus, *Yan* fails to teach or suggest at least “wherein a manager invokes functionality on and receives results from the applet via the agent remotely located from the applet.” As a result, *Yan* does not teach or suggest at least all of the claimed features of claim 6. Therefore, claim 6 is not anticipated by *Yan*, and the rejection should be withdrawn for at least this reason alone.

In the Advisory Action of September 6, 2006, the Examiner states that "Yan discloses an executable computer program section '226' which is loaded into the printer that is enabled by the peripheral API '228' to access functionality associated with the device (see column 9 lines 43-49)." Page 2.

In response, Applicant submits that if the executable computer program section 226 is construed as an application program, then the peripheral API 228 does not satisfy the manager limitation in the claim. For at least this reason, claim 6 is not anticipated by Yan.

The Advisory Action also states: "Further, in one embodiment a remote administration application includes an applet located on the host computer that interacts with the control applets located on the peripheral devices (see column 23 lines 15-46). Thus, the host computer is located remotely from the printer via a network and the host computer (manager) makes calls to the printer to perform desired tasks (invokes functionality), via a control applet (agent), such as printing, and receives the desired results, all of which is analogous to the claimed limitations as set forth in claims 1, 6, and 25 and therefore is still anticipated by Yan." Pages 2-3.

In response, Applicant submits that Yan discloses that a control applet is obtained from a peripheral device and is plugged into the remote administration application "and enables a person to manage the particular peripheral device." Col. 23, lines 30-35. Therefore, the network administration application sans control applet is unable to manage the particular peripheral device. Accordingly, a remote administration application would have to have a plugged-in control applet in order to possibly be construed as a manager, as described in the claim. If this is the case, then

Yan does not disclose an agent, as described in the claim, since the control applet and network administration agent constitute the claimed manager and no other disclosed component or element constitutes the claimed agent, if one follows the logic of the Examiner's argument or part thereof. For at least this reason, claim 6 is not anticipated by *Yan*.

5. Applicant's Claims 7-16

Because independent claim 6 is allowable over the cited art of record, dependent claims 7-16 (which depend from independent claim 6) are allowable as a matter of law for at least the reason that dependent claims 7-16 contain all the features of independent claim 6. For at least this reason, the rejections of claims 7-16 should be withdrawn.

6. Applicant's Claim 17

As provided in independent claim 17, Applicant claims:

A printer comprising:
an applet;
a virtual machine capable of executing the applet; and
an interface for communication between the printer and a remote agent, wherein the agent initiates management events including requesting amount of resources being utilized by each applet operating on the virtual machine.

(Emphasis added).

Applicants respectfully submit that independent claim 17 is allowable for at least the reason that *Yan* does not disclose, teach, or suggest at least "an interface for communication between the printer and a remote agent, wherein the agent initiates management events including requesting amount

of resources being utilized by each applet operating on the virtual machine,” as recited and emphasized above in claim 17.

Rather, *Yan* appears to disclose at most a process for establishing “a bidirectional communication between the selected peripheral device and the host computer for transmitting and receiving real-time information generated while the peripheral device is operating.” Col. 21, lines 51-54. Further, a peripheral API is located on the peripheral device, such that the “peripheral API enables executable computer programs 226 to access functionality associated with a peripheral device such as printer 102B using hardware independent and architecturally neutral system calls.” Col. 9, lines 32-36. Thus, *Yan* fails to teach or suggest at least “an interface for communication between the printer and a remote agent, wherein the agent initiates management events including requesting amount of resources being utilized by each applet operating on the virtual machine,” as recited in claim 17.

On this point, the final Office Action states asserts that “*Yan* states that an applet can be executed to determine what areas of the printer device need repair or are close to being depleted, such information as the amount of paper available, amount of toner, etc. . . . Therefore *Yan* can still be seen as anticipating claims 17 and 32.” Page 4. In response, Applicants respectfully submit that this explanation fails to show that *Yan* teaches or suggests “requesting amount of resources being utilized by each applet.” For example, the areas of a printer device that need repairing or are close to being depleted of ink or paper do not suggest the amount of resources being utilized by each applet.

As a result, Yan does not teach or suggest at least all of the claimed features of claim 17. Therefore, claim 17 is not anticipated by Yan, and the rejection should be withdrawn for at least this reason alone.

In the Advisory Action of September 6, 2006, the Examiner states that “the applicant asserts that the reference of Yan fails to disclose, ‘an interface for communication between the printer and a remote agent, wherein the agent initiates management events including requesting amount of resources being utilized by each applet operating on the virtual machine’. The examiner respectfully disagrees as Yan does disclose such a feature. Particularly, Yan discloses that a host computer can query a peripheral device for such information as amount of paper and amount of toner, which is the same as requesting the amount of a resource as recited in the claims (see column 22 line 58-column 23 line 12). Thus, the bi-directional communication link (interface) between the peripheral device (printer) and the host computer (remote agent) requests the amount of resources being utilized by the applet. Therefore, for the above reasons, the rejection of claims 1-37 is maintained.”

Page 3.

In response, Applicant submits that the claim 17 recites “requesting amount of resources being utilized by each applet operating on the virtual machine.” In contrast, the Examiner states that “Yan discloses that a host computer can query a peripheral device for such information as amount of paper and amount of toner, which is the same as requesting the amount of a resource as recited in the claims (see column 22 line 58-column 23 line 12).”

Page 3. Applicant submits that the amount of resources being utilized by an applet operating on a virtual machine is distinct and different from the amount

of resources utilized by a peripheral device, such as paper or toner levels. Paper or toner, for example, are types of resources utilized by a peripheral device, in general, regardless if the device has an agent or not. Those types of resources are not “utilized by the applet.” Therefore, Yan fails to teach or suggest “requesting amount of resources being utilized by each applet operating on the virtual machine,” as described in the claim. As such, Yan does not anticipate claim 17.

7. Applicant’s Claims 18-19 and 22-24

Because independent claim 17 is allowable over the cited art of record, dependent claims 18-19 and 22-24 (which depend from independent claim 17) are allowable as a matter of law for at least the reason that dependent claims 18-19 and 22-24 contain all the features of independent claim 17. For at least this reason, the rejections of claims 18-19 and 22-24 should be withdrawn.

8. Applicant’s Claim 25

As provided in independent claim 25, Applicant claims:

A method of instructing a printer having a virtual machine comprising:
serving an applet to the printer;
executing the applet on the virtual machine to produce a result;
communicating the result from the printer to an agent remotely located from the printer; and
communicating the result from the agent to a manager.

(Emphasis added).

Applicants respectfully submit that independent claim 25 is allowable for at least the reason that *Yan* does not disclose, teach, or suggest at least “communicating the result from the printer to an agent remotely located from the printer; and communicating the result from the agent to a manager,” as recited and emphasized above in claim 25.

Rather, *Yan* appears to disclose at most a process for establishing “a bidirectional communication between the selected peripheral device and the host computer for transmitting and receiving real-time information generated while the peripheral device is operating.” Col. 21, lines 51-54. Further, a peripheral API is located on the peripheral device, such that the “peripheral API enables executable computer programs 226 to access functionality associated with a peripheral device such as printer 102B using hardware independent and architecturally neutral system calls.” Col. 9, lines 32-36. Thus, *Yan* fails to teach or suggest at least “communicating the result from the printer to an agent remotely located from the printer; and communicating the result from the agent to a manager,” as recited in claim 25.

For example, *Yan* discloses a skeletal remote administration applet that can be used to manage a particular peripheral device but fails to teach or suggest an agent (or similar application) remotely located from the peripheral device that is used to communicate with the administration applet. As a result, *Yan* does not teach or suggest at least all of the claimed features of claim 25. Therefore, claim 25 is not anticipated by *Yan*, and the rejection should be withdrawn for at least this reason alone.

In the Advisory Action of September 6, 2006, the Examiner states that “*Yan* discloses an executable computer program section ‘226’ which is loaded

into the printer that is enabled by the peripheral API ‘228’ to access functionality associated with the device (see column 9 lines 43-49).” Page 2.

In response, Applicant submits that if the executable computer program section 226 is construed as an application program, then the peripheral API 228 does not satisfy the manager limitation in the claim. For at least this reason, claim 25 is not anticipated by *Yan*.

The Advisory Action also states: “Further, in one embodiment a remote administration application includes an applet located on the host computer that interacts with the control applets located on the peripheral devices (see column 23 lines 15-46). Thus, the host computer is located remotely from the printer via a network and the host computer (manager) makes calls to the printer to perform desired tasks (invokes functionality), via a control applet (agent), such as printing, and receives the desired results, all of which is analogous to the claimed limitations as set forth in claims 1, 6, and 25 and therefore is still anticipated by *Yan*.” Pages 2-3.

In response, Applicant submits that *Yan* discloses that a control applet is obtained from a peripheral device and is plugged into the remote administration application “and enables a person to manage the particular peripheral device.” Col. 23, lines 30-35. Therefore, the network administration application sans control applet is unable to manage the particular peripheral device. Accordingly, a remote administration application would have to have a plugged-in control applet in order to possibly be construed as a manager, as described in the claim. If this is the case, then *Yan* does not disclose an agent, as described in the claim, since the control applet and network administration agent constitute the claimed manager and

no other disclosed component or element constitutes the claimed agent, if one follows the logic of the Examiner's argument or part thereof. For at least this reason, claim 25 is not anticipated by Yan.

9. Applicant's Claims 26-31

Because independent claim 25 is allowable over the cited art of record, dependent claims 26-31 (which depend from independent claim 25) are allowable as a matter of law for at least the reason that dependent claims 26-31 contain all the features of independent claim 25. For at least this reason, the rejections of claims 26-31 should be withdrawn.

10. Applicant's Claim 32

As provided in independent claim 32, Applicants claim:

A printer comprising:

an applet execution means for executing the applet; and interface means for communicating between the printer and a remote agent, *wherein the remote agent initiates management events to be performed by the applet including requesting amount of resources being utilized by each applet operating on the printer.*

(Emphasis added).

Applicants respectfully submit that independent claim 32 is allowable for at least the reason that Yan does not disclose, teach, or suggest at least "wherein the remote agent initiates management events to be performed by the applet including requesting amount of resources being utilized by each applet operating on the printer," as recited and emphasized above in claim 32.

Rather, Yan appears to disclose at most a process for establishing "a bidirectional communication between the selected peripheral device and the

host computer for transmitting and receiving real-time information generated while the peripheral device is operating.” Col. 21, lines 51-54. Further, a peripheral API is located on the peripheral device, such that the “peripheral API enables executable computer programs 226 to access functionality associated with a peripheral device such as printer 102B using hardware independent and architecturally neutral system calls.” Col. 9, lines 32-36. Thus, *Yan* fails to teach or suggest at least “wherein the remote agent initiates management events to be performed by the applet including requesting amount of resources being utilized by each applet operating on the printer,” as recited in claim 32.

On this point, the final Office Action states asserts that “*Yan* states that an applet can be executed to determine what areas of the printer device need repair or are close to being depleted, such information as the amount of paper available, amount of toner, etc. . . . Therefore *Yan* can still be seen as anticipating claims 17 and 32.” Page 4. In response, Applicants respectfully submit that this explanation fails to show that *Yan* teaches or suggests “requesting amount of resources being utilized by each applet.” For example, the areas of a printer device that need repairing or are close to being depleted of ink or paper do not suggest the amount of resources being utilized by each applet.

As a result, *Yan* does not teach or suggest at least all of the claimed features of claim 32. Therefore, claim 32 is not anticipated by *Yan*, and the rejection should be withdrawn for at least this reason alone.

In the Advisory Action of September 6, 2006, the Examiner states that “the applicant asserts that the reference of *Yan* fails to disclose, ‘an interface

for communication between the printer and a remote agent, wherein the agent initiates management events including requesting amount of resources being utilized by each applet operating on the virtual machine'. The examiner respectfully disagrees as Yan does disclose such a feature. Particularly, Yan discloses that a host computer can query a peripheral device for such information as amount of paper and amount of toner, which is the same as requesting the amount of a resource as recited in the claims (see column 22 line 58-column 23 line 12). Thus, the bi-directional communication link (interface) between the peripheral device (printer) and the host computer (remote agent) requests the amount of resources being utilized by the applet. Therefore, for the above reasons, the rejection of claims 1-37 is maintained."

Page 3.

In response, Applicant submits that the claim 32 recites "requesting amount of resources being utilized by each applet operating on the printer." In contrast, the Examiner states that "Yan discloses that a host computer can query a peripheral device for such information as amount of paper and amount of toner, which is the same as requesting the amount of a resource as recited in the claims (see column 22 line 58-column 23 line 12)." Page 3. Applicant submits that the amount of resources being utilized by an applet operating on a virtual machine is distinct and different from the amount of resources utilized by a peripheral device, such as paper or toner levels. Paper or toner, for example, are types of resources utilized by a peripheral device, in general, regardless if the device has an agent or not. Those types of resources are not "utilized by the applet." Therefore, Yan fails to teach or suggest "requesting amount of resources being utilized by each applet

operating on the printer," as described in the claim. As such, *Yan* does not anticipate claim 32.

11. Applicant's Claims 35-37

Because independent claim 32 is allowable over the cited art of record, dependent claims 35-37 (which depend from independent claim 32) are allowable as a matter of law for at least the reason that dependent claims 35-37 contain all features of independent claim 32. For at least this reason, the rejections of claims 35-37 should be withdrawn.

B. Claims 20-21 and 33-34

Claims 20 and 33 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Yan* in view of *Sokolov*. Claims 21 and 34 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Yan* in view of *Friedman*. It is well-established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of the claim at issue. See, e.g., *In Re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

1. The Yan Disclosure

Yan describes that virtual machine instructions can be downloaded to a peripheral device. The virtual machine instructions can be executed by the

peripheral device and can configure the peripheral device to work in a predetermined manner.

In particular, Yan discloses:

Applications developed using systems of the present invention also facilitate peripheral devices which are self-configuring and capable of performing automatic upgrading/updating. In this application, a peripheral device registers a peripheral profile with a peripheral database when the device is attached to the network and performs a power on self-test (POST). After POST, an applet stored in non-volatile memory (NVRAM) or other storage medium of the peripheral device requests a configuration applet from the peripheral database. In response, the peripheral database downloads an applet of virtual machine instructions which automatically configures the peripheral device to work in a predetermined manner. For example, an applet could be downloaded into a printer peripheral device which causes the printer device to use a TimesRoman font, print landscape, and use papers initially from tray 1. This self-configuring option would speed up initial printer configuration significantly and allow for printer devices to be relocated on a network with minimal impact on the user community.

Col. 23, lines 47-65. Further:

The virtual machine instructions used to implement peripheral API 228 are also beneficial because processing of the jobs can be distributed or relocated on different host computers or peripheral devices. For example, using peripheral API 228 described below enables a first peripheral device to request a second peripheral device (not shown) to process data and return the image for further processing on the first peripheral device. Therefore, well written applications can perform peripheral operations in parallel and improve the effective performance of a given peripheral device.

Col. 10, lines 45-55. For example:

At step 302 in FIG. 3, the application uses a predetermined selection criteria to query the peripheral database 110 (FIG. 1) and determine which peripheral device is best suited for performing the desired peripheral operation. Processing transfers from step 302 to step 304, where the method automatically selects a peripheral device for performing the requested job based upon the predetermined selection criteria. In one embodiment, step 304 will provide the user with a

prioritized list of peripheral devices and prompt the user to decide which peripheral device should be used. If the user does not respond within a predetermined time period, the peripheral device will automatically operate on the highest priority peripheral device. For example, assume that three printers are coupled to the network and are capable of low-resolution color, high resolution black and white, and high-resolution color printing. An application or user selects a high-resolution color printer in an application running on a host computer. This causes the method to query the peripheral database, determine where the high-resolution color printer is located and then request the high-resolution color printer to perform the operation. However, if the color printer selected is unable to perform the operation, due to lack of resources such as toner or paper, the printer will then download a response application back to the requesting host machine requesting the user or application to select a different set of criteria for printing the job. In response, the user or application can then select the high-resolution black and white printer to print the job instead.

Cols. 18-19, 63-22.

2. The *Sokolov* Disclosure

Sokolov describes methods and apparatuses for “interfacing a JavaScript interpreter with a JavaScript library of host objects implemented using the Java programming language. Specifically, a method and apparatus is disclosed for accessing a JavaScript program, parsing the program, generating an intermediate representation of the JavaScript program, and executing the intermediate representation by interfacing with the JavaScript library of host objects.” Col. 2, lines 8-16.

3. The *Friedman* Disclosure

Friedman describes systems and methods which “enable[] an XML data stream to be parsed without the need to build a hierarchical tree structure for an XML document. The XML data stream is parsed as the data stream is

received. This saves memory overhead and increases the speed with which data can be provided to the client or application. In the described embodiment, an element or namespace stack is utilized as a way of organizing parsing activities and maintaining a definable place within the structure of the XML document. The element or namespace stack has a plurality of frames that are used to hold data during the parsing activities.”

Col. 5, lines 35-47.

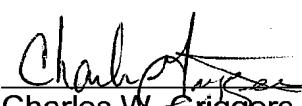
4. Applicant’s Claims 20-21 and 33-34

All of the claimed features of independent claims 17 and 32 are not taught and suggested by *Yan*, as previously discussed. Further, the cited art of *Sokolov* and *Friedman* fails to cure the deficiencies of the *Yan* reference in suggesting or teaching all of the claimed features in claims 20, 21, 33, and 34 (which depend from respective independent claims 17 and 32). Therefore, a *prima facie* case establishing an obviousness rejection by the proposed combination of *Yan* with the cited art has not been made. Therefore, the rejections of claims 20, 21, 33, and 34 should be withdrawn.

VIII. Conclusion

In summary, it is Applicant's position that Applicant's claims are patentable over the applied cited art references and that the rejection of these claims should be withdrawn. Appellant therefore respectfully requests that the Board of Appeals overturn the Examiner's rejection and allow Applicant's pending claims.

Respectfully submitted,

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Claims Appendix under 37 C.F.R. § 41.37(c)(1)(viii)

The following are the claims that are involved in this Appeal.

1. A manager loadable printer comprising:
an application program loaded on the printer, wherein a manager invokes functionality on and receives results from the application program via an agent remotely located from the application program.
2. The printer of claim 1 wherein the application program comprises an applet served by the manager.
3. The printer of claim 1 wherein the application program comprises an applet served by the manager and further comprising a virtual machine capable of executing the applet.
4. The printer of claim 1 further comprising an interface for communication with the agent.
5. The printer of claim 1 wherein the application program comprises an applet comprising printer instructions.

6. A method of instructing a printer having a virtual machine, the method comprising:

providing an agent, the agent having an associated applet;
loading the applet on the virtual machine; and
executing the applet on the virtual machine, wherein a manager invokes functionality on and receives results from the applet via the agent remotely located from the applet.

7. The method of claim 6 further comprising communicating the executing step to the agent.

8. The method of claim 7 further comprising communicating from the agent to the manager.

9. The method of claim 6 wherein the applet includes print job accounting instructions.

10. The method of claim 6 wherein the executing step includes print job accounting.

11. The method of claim 6 wherein the loading includes serving an applet to a printer via a network.

12. The method of claim 11 wherein the network includes the Internet.

13. The method of claim 6 wherein the providing includes loading the agent on a workstation.

14. The method of claim 6 wherein the providing includes loading the agent on a server.

15. The method of claim 6 wherein the agent executes on a virtual machine.

16. The method of claim 6 wherein the applet includes an instruction selected from the group consisting of alerting, embedding, configuring, setting, and combinations thereof.

17. A printer comprising:
an applet;
a virtual machine capable of executing the applet; and
an interface for communication between the printer and a remote agent, wherein the agent initiates management events including requesting amount of resources being utilized by each applet operating on the virtual machine.

18. The printer of claim 17 wherein the interface comprises a protocol adaptor.

19. The printer of claim 17 wherein the interface comprises a connector.
20. The printer of claim 17 wherein the interface comprises a syntax and a syntax parser.
21. The printer of claim 17 wherein the interface comprises XML and an XML parser.
22. The printer of claim 17 wherein the interface comprises TCP/IP.
23. The printer of claim 17 wherein the agent communicates with a manager.
24. The printer of claim 17 wherein the applet includes printer instructions.
25. A method of instructing a printer having a virtual machine comprising:
 - serving an applet to the printer;
 - executing the applet on the virtual machine to produce a result;
 - communicating the result from the printer to an agent remotely located from the printer; and
 - communicating the result from the agent to a manager.

26. The method of claim 25 wherein the serving includes loading the applet into memory on the printer.

27. The method of claim 25 further comprising initiating the executing via a manager and the agent.

28. The method of claim 25 further comprising communicating arguments from a manager to the agent

29. The method of claim 25 wherein the communicating from the printer to the agent includes communicating via a network.

30. The method of claim 25 wherein the serving includes serving an applet to a plurality of printers each having a virtual machine.

31. A computer-readable medium containing a computer program that is storable in memory and executable by a processor to configure a printer and at least one computer to perform the method of claim 25.

32. A printer comprising:
- an applet execution means for executing the applet; and
- interface means for communicating between the printer and a remote agent, wherein the remote agent initiates management events to be performed by the applet including requesting amount of resources being utilized by each applet operating on the printer.
33. The printer of claim 32 wherein the interface means comprises a syntax and a syntax parser.
34. The printer of claim 32 wherein the interface means comprises XML and an XML parser.
35. The printer of claim 32 wherein the agent communicates with a manager.
36. The printer of claim 32 wherein the applet includes printer instructions.
37. The printer of claim 32 wherein the interface means comprises TCP/IP.

Evidence Appendix under 37 C.F.R. § 41.37(c)(1)(ix)

There is no extrinsic evidence to be considered in this Appeal.

Therefore, no evidence is presented in this Appendix.

Related Proceedings Appendix under 37 C.F.R. § 41.37(c)(1)(x)

There are no related proceedings to be considered in this Appeal.
Therefore, no such proceedings are identified in this Appendix.